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EXAMINER

NATNAEL, PAULO M

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 09/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/806,003

Applicant(s)

BRETT ET AL.

Examiner

Paulos M. Natnael

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2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because drawings are not labeled. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.

- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims **14–26** are rejected under 35 U.S.C. 102(b) as being anticipated by Braun, U.S. Pat. No. 5,369,442.

Considering claim **14**, a method for picture-in-picture insertion,

a) wherein a sequence of insertion pictures ($K_j = K_1, K_2, \dots$) decimated by vertical decimation ($VD > 1$) are read into a memory device (S) and subsequently read out, wherein the insertion pictures (K_j) read out are inserted into a sequence of main pictures ($H_i = H_1, H_2, \dots$), is met by the insertion pictures K_1 and K_2 inserted by the inserting device ES into a sequence of main signals H_1 and H_2 , Fig. 2;

? b) wherein the memory device (S) has a storage capacity of less than two insertion pictures (K_j) and is subdivided into memory segments (X,Y,Z;A,B,C,D,E) which are

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continuously overwritten by the insertion pictures, is met by the memory device SP, fig.2;

c) wherein a decision is made as to whether the currently written insertion picture (K_j) or the immediately preceding insertion picture (K_{j-1}) is read out, is met by the decision device EE outputting decision signal ROF, fig.2; (see col. 6, lines 60-65)

d) wherein more than one memory segment (X,Y,Z;A,B,C,D,E) of the memory device (S) is required for storing an insertion picture (K_j), and in that the memory segments (X,Y,Z;A,B,C,D,E) of the memory device (S) are cyclically overwritten by the insertion pictures (K_j) in a predetermined order, is met by SP1 and SP2 of memory SP, fig.2;

Considering claim **15**, the method of claim 14 wherein the memory segments (X,Y,Z;A,B,C,D,E) are the same size, is met by SP1 and SP2 of memory SP, fig.2;

Considering claim **16**, the method of claim 14 wherein in a manner dependent on the ratio of a reading speed of a read pointer to a writing speed of a write pointer and a relative position of the write pointer in a writing area (I,II; I,II,III) holding the currently written insertion picture, a decision is made as to whether the currently written insertion picture (K_j) or the immediately preceding insertion picture (K_{j-1}) is read out.

See rejection of claim 1(c).

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Considering claim **17**, the method of claim 14 wherein the memory device has a storage capacity which is $(2-1/VD)$ times the storage capacity required for an insertion picture, where VD is the vertical decimation of the insertion picture, is met by the disclosure that "the capacity of the memory device can, for instance, be selected in such a way that 288 lines times 270 picture elements (pixels) can be stored, and thus one entire half-frame of the main picture. According to the invention, the first memory region SP1 is located in a memory portion SPL of a memory device SPO that is intended for the left half of the picture, and the second memory region SP2 is located in a memory portion SPR provided for the right half of the picture." (col. 12, 35-39)

Considering claim **18**, the method of claim 17 wherein the memory segments are the same size and the number of memory segments is $2*VD-1$, the number of memory segments required for an insertion picture corresponding to the vertical decimation (VD).

See rejection of claims 17 and 15;

Considering claim **19**, the method of claim 18 wherein a memory segment has a storage capacity of $1/VD$ times the storage capacity required for an insertion picture and the decision criterion that is applied is whether the last memory segment (II; 111) required for the currently written insertion picture is already being written too, is met by the SP1 and SP2 of memory SP, fig.2; (see also rejection of claim 17)

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Considering claim **20**, the method of claim 14 wherein the insertion pictures (K_j) and main pictures (H_i) are fields of a monitor picture, is met by the insertion pictures $K1/K2$ and main pictures $H1$ and $H2$, fig. 2;

Considering claim **21**, the method of claim 14 wherein a comparison is made to determine whether a main picture (H_i) and an insertion picture (K_i) to be inserted into the latter have an identical field position, and, in the case of a differing field position, an identical field position is achieved by address shifting of the main picture (H_i) or of the insertion picture, is met by the disclosure that "The thus-obtained signal OFF is used as a decision criterion for the readout from the first or second memory region SP1, SP2. This is accomplished by sampling the signal OFF with the signal LZ 27, which defines the beginning of a half-frame in the main picture." (col. 10, 59-64)

Considering claim **22**, a circuit arrangement for picture-in-picture insertion having a memory device (S) for storing vertically decimated insertion pictures ($K_j=K1, K2, \dots$), the memory device (S) having a storage capacity of less than two insertion pictures (K_j) and being subdivided into memory segments (X,Y,Z;A,B,C,D,E) which can be continuously overwritten by the insertion pictures (K_j), having a control device (3) for reading out the vertically decimated insertion pictures from the memory device (S) and for inserting the insertion pictures (K_j) read out into a sequence of main pictures ($1-l_i=H1, H2, \dots$), and

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having a decision device for deciding whether the currently written insertion picture (K_j) or the immediately preceding insertion picture (IK_{j-1}) is read out, wherein each memory segment ($X,Y,Z:A,B,C,D,E$) has a storage capacity of less than one insertion picture (K_j), and in that the memory segments ($X,Y,Z:A,B,C,D,E$) of the memory device (S) can be cyclically overwritten by the insertion pictures (K_j) in a predetermined order.

Regarding claim 22, see rejection of claim 14;

Considering claim **23**, the circuit arrangement of claim 22 wherein the memory segments ($X,Y,Z:A,B,C,D,E$) are the same size.

Regarding claim 23, see rejection of claim 15;

Considering claim **24**, the circuit arrangement of claim 22 wherein the memory device has a storage capacity which is $(2-1/VD)$ times the storage capacity required for an insertion picture, where VD is the vertical decimation of the insertion picture.

Regarding claim 24, see rejection of claim 17.

Considering claim **25**, the circuit arrangement of claim 24 wherein the memory segments are the same size and the number of memory segments is $2*VD-1$, the number of memory segments required for an insertion picture corresponding to the vertical decimation (VD).

Regarding claim 25, see rejection of claim 18;

Considering claim **26**, the circuit arrangement of claim 22 wherein in a manner dependent on the ratio of a reading speed of a read pointer to a writing speed of a write pointer and a relative position of the write pointer in a writing area holding the currently written insertion picture, the decision device decides whether the currently written insertion picture (Kj) or the immediately preceding insertion picture (Kj-1) is read out.

Regarding claim 26, see rejection of claim 16.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Canfield, U.S. Pat. No. 4,987,493 discloses memory efficient interlace apparatus and method as for a picture-in-picture display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paulos M. Natnael whose telephone number is (703) 305-0019. The examiner can normally be reached on 6:30am -3pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

Paulos Natnael *pm*
September 21, 2003


MICHAEL H. LEE
PRIMARY EXAMINER